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PTO/SB/21 (09-04)

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/711,198	
	Filing Date	09/01/2004	
	First Named Inventor	Jiunn-Ren Hwang	
	Art Unit	1756	
	Examiner Name	YOUNG, CHRISTOPHER G	
Total Number of Pages in This Submission	9	Attorney Docket Number	NAUP0493USA4

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	1. A copy of the Front Page of Patent
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	2. A copy of Fee Transmittal
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	4. Copies of the Notice of Recordation
<input type="checkbox"/> Reply to Missing Parts/Incomplete Application	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	Remarks	
Request for Certificate of Correction		
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm Name	North America Intellectual Property Corporation	
Signature	<i>Winston Hsu</i>	
Printed name	Winston Hsu	
Date	AUG 01 2006	Reg. No. 41,526

Certificate
AUG 04 2006
of Correction

CERTIFICATE OF TRANSMISSION/MAILING		
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:		
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Typed or printed name	Brenda Lin	Date AUG 01 2006

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AUG 07 2006



PTO/SB/17 (12-04v2)

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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)**0.00****Complete if Known**

Application Number	10/711,198
Filing Date	09/01/2004
First Named Inventor	Jiunn-Ren Hwang
Examiner Name	YOUNG, CHRISTOPHER G
Art Unit	1756
Attorney Docket No.	NAUP0493USA4

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☒ Deposit Account Deposit Account Number: **50-3105** Deposit Account Name: North America Intellectual Property Corporation

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Small Entity	Fee (\$)	Small Entity	Fee (\$)	Small Entity	Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
Total Claims		
- 20 or HP = _____ x _____ = _____		
HP = highest number of total claims paid for, if greater than 20.		
Indep. Claims		
- 3 or HP = _____ x _____ = _____		
HP = highest number of independent claims paid for, if greater than 3.		

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 = _____	/ 50	(round up to a whole number) x _____	= _____	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): _____

SUBMITTED BY

Signature	<i>Winston Hsu</i>	Registration No. (Attorney/Agent)	41,526	Telephone	3027291562
Name (Print/Type)	Winston Hsu	Date	AUG 01 2006		

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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AUG 07 2006

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor : Jiunn-Ren Hwang, Jui-Tsen Huang, Chang-Jyh Hsieh
Examiner: YOUNG, CHRISTOPHER G Art Unit: 1756
Patent No. : US 7,063,923 B2 Issue Date : Jun. 20, 2006
Docket No. : NAUP0493USA4

Title: OPTICAL PROXIMITY CORRECTION METHOD

To: Commissioner for Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Subject: Request for Certificate of Correction of Office Mistake

The name of the assignee listed on the front page of the Patent is incorrect (Attachment 1). Documents on record indicate this as an Office mistake of consequence.

The applicant hereby requests that a Certificate of Correction be issued under 37 CFR 1.322 to correct the name of the assignee from "**UNITED ELECTRONICS CORP.**" to "**UNITED MICROELECTRONICS CORP.**" which was correctly listed on the Fee Transmittal submitted on 05/02/2006 (Attachment 2) and the Notice of Recordation dated 09/01/2004 (Attachment 3).

AUG 07 2006

Respectfully submitted,

Winston Hsu

Date: AUG 01 2006

Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

Facsimile: 806-498-6673

e-mail : winstonhsu@naipo.com

(Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan).

AUG 07 2006

Please correct the name of the assignee
from "UNITED ELECTRONICS CORP." to
"UNITED MICROELECTRONICS CORP."



US007063923B2

Attachment 1

BEST AVAILABLE COPY

(12) **United States Patent**

Hwang et al.

(10) Patent No.: **US 7,063,923 B2**

(45) Date of Patent: **Jun. 20, 2006**

(54) **OPTICAL PROXIMITY CORRECTION METHOD**

(75) Inventors: **Jiunn-Ren Hwang, Hsin-Chu (TW);
Jui-Tsen Huang, Taipei (TW);
Chang-Jyh Hsieh, Hsin-Chu (TW)**

(73) Assignee: **United Electronics Corp., Hsin-Chu (TW)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/711,198**

(22) Filed: **Sep. 1, 2004**

(65) **Prior Publication Data**

US 2005/0009344 A1 Jan. 13, 2005

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/064,413, filed on Jul. 11, 2002, now abandoned.

(51) Int. Cl. **G03F 9/00** (2006.01)

(52) U.S. Cl. **430/5; 430/30**

(58) Field of Classification Search **430/5, 430/30**

See application file for complete search history.

(56) **References Cited**

U S. PATENT DOCUMENTS

6,001,512 A * 12/1999 Tzu et al. 430/5
6,294,295 B1 * 9/2001 Lin et al. 430/5

FOREIGN PATENT DOCUMENTS

JP	1-186624	7/1989
JP	3-30332	2/1991
JP	5-19446	1/1993
JP	6-266095	9/1994
JP	11-102063	4/1999

* cited by examiner

Primary Examiner—Christopher G. Young

(74) *Attorney, Agent, or Firm*—Winston Hsu

(57) **ABSTRACT**

An integrated circuit layout includes dense figures and at least one isolated figure. A plurality of dummy patterns are formed to surround the isolated figure, so as to reduce the difference in pattern density of the integrated circuit layout. A transmitted light of the dummy patterns provides a phase difference of 0 or 180 degrees relative to a transmitted light of the integrated circuit layout. The integrated circuit layout and the plurality of dummy patterns are formed on a photo-mask.

14 Claims, 3 Drawing Sheets

Attachment 2

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
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 Alexandria, Virginia 22313-1450
 or **Fax** (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

027765 7590 02/02/2006

NORTH AMERICA INTELLECTUAL PROPERTY
 CORPORATION
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Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Janice Chen (Depositor's name)
 Janice Chen (Signature)
 05/02/2006 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/7/11,198	09/01/2004	Junn-Ren Hwang	NAUP0493USA4	5197

TITLE OF INVENTION: OPTICAL PROXIMITY CORRECTION METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	05/02/2006
EXAMINER	ART UNIT	CLASS-SUBCLASS			
YOUNG, CHRISTOPHER G	1756	430-005000			

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Winston Hsu

2

3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

UNITED MICROELECTRONICS CORP.

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

No.3, Li-Hsin Road 2, Science-Based Industrial Park, Hsin-Chu City,
 Taiwan, R.O.C.

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☒ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 50-3105 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature

Winston Hsu

Date 05/02/2006

Typed or printed name

Winston Hsu

Registration No. 41,526

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Attachment 3

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P.O. BOX 506
MERRIFIELD, VA 22116



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9/13

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NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/01/2004

REEL/FRAME: 015061/0678
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: NAUP0493USA4

ASSIGNOR:
HWANG, JIUNN-REN

DOC DATE: 07/30/2004

ASSIGNOR:
HUANG, JUI-TSEN

DOC DATE: 07/30/2004

ASSIGNOR:
HSIEH, CHANG-JYH

DOC DATE: 07/30/2004

ASSIGNEE:

UNITED MICROELECTRONICS CORP.
NO.3, LI-HSIN ROAD 2, SCIENCE-
BASED INDUSTRIAL
PARK
HSIN-CHU CITY, TAIWAN

015061/0678 PAGE 2

SERIAL NUMBER: 10711198

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: OPTICAL PROXIMITY CORRECTION METHOD

TONYA LEE, EXAMINER

ASSIGNMENT DIVISION

OFFICE OF PUBLIC RECORDS

PATENT ASSIGNMENT

Electronic Version v08

Stylesheet Version v02

09/01/2004

800013504

SUBMISSION TYPE:

NEW ASSIGNMENT

APPLICATION NUMBER

10/711198

NATURE OF CONVEYANCE:

ASSIGNMENT OF ASSIGNOR'S INTEREST

CONVEYING PARTY DATA

Name	Execution Date
Jiunn-Ren Hwang	2004-07-30
Jui-Tsen Huang	2004-07-30
Chang-Jyh Hsieh	2004-07-30

RECEIVING PARTY DATA

Name	Street Address	Internal Address	City	State/Country	Postal Code
UNITED MICROELECTRONICS CORP.	No.3, Li-Hsin Road 2, Science-Based Industrial	Park	Hsin-Chu City	TAIWAN	

CORRESPONDENCE DATA

FAX NUMBER: 886229295950

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CUSTOMER NUMBER: 027765

NAME OF PERSON SIGNING:

WINSTON HSU

DATE SIGNED:

2004-08-30

Total Attachments: 2

source=NAUP0493-4-A1ASS1.tif

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